DOCUMENT RESUME

ED 378 123 SO 024 667

TITLE	Statement of Facts for 1987 City-Wide Mock Trial Competitions. Dana Barr, Plaintiff v. Kit Zuff, as Administrator of the Lorton Medium Security Facility, Defendant. MT-87.
INSTITUTION	Georgetown Univ., Washington, DC. Law Center.; National Inst. for Citizen Education in the Law, Washington, DC.
PUB DATE	87
NOTE	45p.; For related items, see SO 024 656-674. Some pages may not reproduce clearly.
AVAILABLE FROM	Social Studies School Service, Dept. A3, P.O. Box 802, Culver City, CA 90232-0802.
PUB TYPE	Guides - Classroom Use - Instructional Materials (For Learner) (051) -- Guides - Classroom Use - Teaching Guides (For Teacher) (052)
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Acquired Immune Deficiency Syndrome; *Citizenship Education; Court Litigation; Criminal Law; Instructional Materials; *Law Related Education; Secondary Education; Social Studies
IDENTIFIERS	*Mock Trials; *Street Law

ABSTRACT

Prepared by the District of Columbia Street Law Project for its 16th annual city-wide mock trial competition, this instructional handout provides the material for a mock civil trial in which Dana Barr, a former corrections officer, brings suit against the Lorton Medium Security Facility for firing him on the basis of his status as Human Immuno-Deficiency Virus (HIV) positive. The District of Columbia Department of Corrections contends that the inmates' fear of contracting Acquired Immune Deficiency Syndrome (AIDS) from Barr made it impossible for him to carry out his duties as a prison guard. Barr claims that he was fired because of a personal conflict with a supervisor and that the prison could have made reasonable accommodation to allow him to continue at his position. The handout clarifies the laws and explains the legal precedents. As evidence, the handout provides a statistical report from the National Centers for Disease Control; an AIDS fact sheet; other documents on the AIDS virus; and witness statements from the plaintiff, Barr's former supervisor, the director of the AIDS Education Project, the administrator who fired Barr, the head of the inmate council, and a corrections management consultant. Through participation in mock trials and analysis of the activity, students gain an insider's perspective on courtroom procedure and a basic understanding of the legal mechanism through which society resolves its disputes. Mock trials develop critical analysis, questioning and listening skills, and skills in preparing and organizing materials. (JD)

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1987 STREET LAW MOCK TRIAL MATERIALS

Statement of Facts for 1987 City-Wide Mock Trial Competitions

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SO 024 607

MATERIALS PREPARED AND PRESENTED BY THE STAFF OF THE D.C. STREET LAW PROJECT FOR THE SIXTEENTH ANNUAL CITYWIDE MOCK TRIAL PROGRAM SPONSORED BY THE PUBLIC SCHOOLS OF THE DISTRICT OF COLUMBIA AND THE D.C. STREET LAW PROJECT

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IN THE SUPERIOR COURT OF THE
DISTRICT OF COLUMBIA

Dana Barr,	:	
Plaintiff,	:	
- v.-	:	MT-87
Kit Zuff, as Administrator of the Lorton Medium Security Facility,	:	
Defendant.	:	

Statement of Facts

Until recently, plaintiff, Dana Barr, was a corrections officer in the District of Columbia Department of Corrections Lorton Medium Security Facility. The facility holds close to 1,300 people and is crowded to the extent that it exceeds the number of inmates it was designed to house. Many of the inmates have been convicted of violent crimes and the inmates' sentences range from 3 to 20 years.

Several years ago, Officer Barr was injured in an accident and required several blood transfusions. About six months ago, he received a notice from the blood bank which provided the blood recommending that he be tested for HIV antibodies. Officer Barr spoke to a staff doctor at the prison, who explained that the test is used to indicate exposure to the AIDS virus, and that the blood bank probably was recommending the test because at the time Barr received the transfusions, donations to the blood supply were not screened for high risk donors or presence of the AIDS antibodies.

Officer Barr was tested twice with the ELISA test; the results on both administrations of the test were positive. Soon

after he got the results, an incident occurred on his cell block involving several inmates. A fight broke out, and escalated until Officer Barr was unable to control it without assistance. Barr called for help and before it was over, two inmates and one officer had to be hospitalized for minor injuries. Since then there has been one more violent incident involving the inmates on the same block.

Officer Barr was called into the Administrator's office to discuss the incident, and was informed that he was being terminated. The Administrator, Kit Zuff, told Barr that he had investigated the incident, and had discovered that the inmates knew of the results of the HIV antibody test. He said that the reason Officer Barr couldn't handle the problem alone was that the inmates objected to being in contact with someone they perceived as having AIDS and would refuse to cooperate with Barr in the future. Zuff ended by saying that he had no choice but to fire Officer Barr.

The Department's position was that in order to preserve security at the prison they had no alternative but to terminate Barr. Additionally the Department argued that as a person who tested positive on the HIV antibody test, Officer Barr posed a serious risk of infection to the inmates if he continued as a corrections officer. They claimed that the nature of the work, which requires close contact with inmates, increased the possibility that Barr could spread AIDS throughout the prison population. As proof, they cited the incident on his unit, during which Officer Barr had to administer first aid to an inmate who was bleeding, and could have been injured himself.

Officer Barr claimed that the prison is able to make a

reasonable accommodation to allow the Officer to continue employment. This would entail instituting an AIDS education program among the residents and staff of the prison, to inform them of the realities of AIDS infection and reduce unwarranted fear.

Barr contended further that the prison fired him because of personal conflicts with a supervisor, and that the issue of fear of AIDS was simply an excuse.

Sixty days ago, after the required hearings and administrative appeals, Officer Barr was terminated by the Department of Corrections. Subsequently, through his attorneys, he has filed suit in the District of Columbia Superior Court claiming that:

1. he was terminated without cause as required by the D.C. Comprehensve Merit Act. Rather, his termination was based on a personal conflict with his supervisor.

2. if it is found that he was terminated because of a positive HIV-antibody test, he was discriminated against, based on the D.C. Human Rights Act. Testing positive for HIV-antibodies on the ELISA test should constitute a handicap under the District of Columbia Human Rights Act, as should the perception of others that Barr has tested positive or has AIDS.

3. that even if the court finds that the inmates on his cell block were afraid of catching AIDS, the termination violated the Distict of Columbia Human Rights Act's prohibition against discrimination of the handicapped, because the facility is able to make a reasonable accommodation to allow Barr to remain on staff.

Officer Barr is seeking:

1. reinstatement into his former position, with no loss of seniority;

2. lost wages for the two months during which he was not working, in the amount of $4,000, and

3. punitive damages in the amount of $50,000, as punishment for the District's conduct in discriminating against a seropositive individual and fostering unfounded fear

regarding AIDS.

The District of Columbia Department of Corrections, through its attorneys, answers the suit as follows:

1. Officer Barr was not fired because of any personal conflict with his superiors. His termination was due to his inability to perform the tasks required of him as a line corrections officer.

2. Officer Barr should not be considered covered by the District of Columbia Human Rights Act because he does not have a handicap, i.e., AIDS. A positive test result on the ELISA test should not qualify as a physical or mental disablement under the District of Columbia Human Rights Act.

3. if the court does find that he is covered by the Human Rights Act, the Department is not able to make a reasonable accommodation to allow Barr to perform the duties of corrections officer because the inmates perceive him as a person with AIDS and refuse to cooperate with him or accord him the authority necessary for him to maintain discipline on the unit.

4. the Department must be allowed to terminate employees in the event of fear, even irrational fear, of AIDS infection in the workplace.

5. Officer Barr presents a serious health risk to the inmates and other workers in the facility.

6. regardless of Officer Barr's qualifications, the Department must be permitted to discharge employees who jeopardize the security of the institution.

7. if the Department is required to rehire this officer, it must be allowed to place Bar in a non-contact position in a guard tower or office.

Both parties stipulate that Dr. Fran Bartlett is an expert for the purpose of testifying to current medical knowledge regarding AIDS and AIDS testing and that Chris Sanger is an expert for the purpose of testifying to current corrections management practices.

The hearing has been scheduled and the following witnesses will be called to testify for both sides:

Plaintiff's Witnesses

1. Dana Barr, Plaintiff,
   Corrections Officer, Lorton Medium Security Facility

2. Sgt. Daryl Fitzgerald,
   Union Shop Steward, Lorton Medium Security Facility

3. Fran Bartlett, M.D.
   Public Information Director, AIDS Project,
   National Centers for Disease Control

Defendant's Witnesses

1. Kit Zuff,
   Administrator, Lorton Medium Security Facility

2. Randy Edwards,
   Head of Inmate Council, Lorton Medium Security Facility
3. Chris Sanger,
   Corrections Management, Inc.

Affidavit of Corrections Officer Dana Barr, Plaintiff:

I have been a line corrections officer on cell blocks in the District of Columbia Lorton Medium Security Facility for four years. Prior to my job at this facility, I was a private security guard at a local hospital. I left there when I was accepted into the training class for Corrections Officers. My record on the job is good - I have been evaluated eight times in the past four years, and have always received ratings of "satisfactory" or better. About four months ago, I was fired from my job.

Several years ago, I was in a car accident and required blood transfusions. The blood bank that provided the blood for me at that time recently contacted me and suggested that I take an HIV-antibody test. Since I wasn't clear what that meant, or why I needed to take the test, I spoke to a doctor at the prison. He told me that at the time I was given the transfusion, donations to the blood supply were not screened for the AIDS virus and that there was a possibility that I had been exposed to the virus through the blood I got.

I went for the test, and later received a lab report back informing me that the test was positive. In order to confirm the positive test result, I took the test again, and result was positive the second time also. According to information I got from the doctor at the prison, a positive test result didn't mean that I had AIDS, or even that I would come down with the disease, just that at some time I had been exposed to the virus and that my body had produced antibodies to it.

Several weeks after I got the test results from the lab, there was some trouble on my cellblock. A fight broke out

between two inmates who had had several conflicts in the past. I went to break it up, but the fight escalated and other inmates began to get involved on both sides. When I realized that I would not be able to handle it alone, I called for assistance. By the time everything was quiet again, two inmates and one officer had been injured and required medical attention. Since then there has been another fight between those same two inmates, but I handled it on my own.

After the first incident Administrator Zuff called me into his office for what I thought was going to be a routine investigation. When I got there, however, he told me that he had conducted his own investigation, and had found out about my AIDS tests and so had the inmates. He said that according to his "sources", which he wouldn't name, the inmates thought I had AIDS and that the reason I couldn't handle the fight was that they didn't want me to come near them because they were afraid of catching AIDS. He said that he had received a demand from the Inmate Council that I be either fired or transferred, and that in order to maintain security in the prison and for my own protection and the protection of both the inmates and my co-workers I was being terminated. It's true that some of the inmates think I have AIDS - during the fight and when it was over, I heard some comments from some of them. Things like "we'd better get disinfected" and stuff like that, and some of the inmates have actually spoken to me personally, but the situation doesn't seem to me to involve more than a couple of the inmates. Anyway, the Inmate Council is not exactly a neutral group. You see, it's not really a group that represents the inmates the way the Muslim groups or the Jaycees do. It's not elected by the

inmates, but appointed by the Prison Administrator. A lot of the regular inmates think that the members of the Council are just stool pigeons for the prison administration, for which they get a lot of special privileges, like private cells and good jobs, and good recommendations to the Parole Board.

I have had trouble with Administrator Zuff in the past, and that's why I was fired. About a year ago, I became aware of a pattern of bribery between a Corrections Officer and some inmates on the Council. I reported it to Administrator Zuff, who was then in charge of just my unit. He took no action, and I went to the Administrator of the prison, who investigated, and issued a reprimand to Zuff for not investigating the allegations promptly. Since then, he's been on my back about everything I do.

There's no reason why I can't do my job properly. In the past several months there have been a couple of violent incidents in the prison, besides the ones on my cell block, and I have helped out other Corrections Officers with no problem. I was assured by the doctor that I don't have AIDS, and that I do not present any danger to the inmates or staff. Zuff has had it in for me since the bribery scandal.

Affidavit of Sgt. Daryl Fitzgerald, Union Shop Steward:

I am the Shop Steward for Line Corrections Officers at the District of Columbia Lorton Medium Security Facility. I used to be Officer Barr's immediate Supervisor, but I haven't been since I became Shop Steward two years ago.

I had the opportunty to work closely with Officer Barr when I was running for shop steward, and based on my memory and past work records, I can say that Officer Barr has been a competent Corrections Officer, and should be eligble for promotion to Sergeant next year. He was very supportive of my efforts to become shop steward so that we could do something about the bribery problems we were having about a year ago. There were two complaints filed against him by inmates around that time, after all the flack about the bribery scandal involving Administrator Zuff, but after investigation the complaints were dismissed and no action was taken against Barr.

As far as this present matter is concerned, it's not unusual for inmates to take a dislike to a particular officer for one reason or another and to "refuse to cooperate" with him, but the Union takes a very strong position against acquiescing to inmate demands for the replacement or transfer of Corrections Officers. We have found that giving in to such demands only creates more problems. It gives the inmates the idea that they control the policies of the prison, instead of the other way around. It's vital for the safety of everyone in the institution for the administration to support the Officers' authority, especially with the increased violence the facility has been experiencing lately.

Also, it makes it almost impossible for an Officer to assume

command on another cell block, and nearly always results in a transfer to a non-inmate contact position. The problem with that is that career advancement in the field of corrections is possible only from line corrections officer positions - all others are dead end jobs, and it is common knowledge that the people who are put in those jobs have been incompetent in their prior positions.

As far as that so-called investigation that Zuff conducted is concerned, all he did was talk to his pals on the Inmate Council. He never spoke to the general inmate population, either on the unit or the prison as a whole. Some of the inmates do think that Barr has AIDS, but Zuff never tried to institute any programs aimed at educating the inmates about AIDS, and refused to allow me to try one that I heard about. There still hasn't been any attempt made to inform the inmates about the dangers and realities of AIDS.

In regard to the question of whether Officer Barr poses a threat to the health of others in the prison, according to information I received at a recent workshop given by the Union for shop stewards, there is no cause to be concerned about working with people with AIDS. I think the prison administration is just using that as an excuse to get rid of Barr. Dana Barr has been a competent officer and there are no grounds for termination as far as the Union is concerned.

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Affidavit of Fran Bartlett, M.D., Director, AIDS Education Project, National Centers for Disease Control

I am the Public Information Director of the AIDS Project at the National Centers for Disease Control. I have reviewed the records concerning this case and am familiar with all aspects of it.

Dana Barr tested positive for HIV-antibodies on two administrations of the test commonly known as ELISA. This is a test that indicates, by presence of antibodies in the blood, whether a person has been exposed to the AIDS virus. It does not in any way indicate whether that person has AIDS. At the present time, there is no scientific certainty about a seropositive person's chances of developing AIDS, although some fairly reliable data suggest that between 10% and 50% of the people who test positive today will develop the disease within the next five years.

Whether or not Officer Barr actually develops AIDS in the future, the test results indicate that he is what is called a "carrier" of the virus. That means that, whether or not Officer Barr ever gets the disease itself, he is able to pass it on to someone else. It is true that any carrier of the AIDS virus can transmit the disease, but it requires the exchange of bodily fluids under very special circumstances, including certain types of sexual activity, sharing infected hypodermic needles, receiving infected blood in a transfusion, or being born to a mother who has the disease.

The virus is not transmitted through casual or even close contact, such as that which Officer Barr would have with inmates or others on his job. As a matter of fact, studies show that it isn't even transmitted between people who share toothbrushes and eating utensils. In May, 1987, however, the CDC reported cases of three health care workers who became infected with the virus after they came in contact with contaminated blood. They were accidently splattered with infected blood which apparently entered their bloodstreams through chapped hands or acne sores. The workers had not followed existing CDC recommendations that they wear gloves and masks, and each was exposed to a substantial amount of blood.

It remains to be seen what the ultimate significance of these new cases will be,

but we must look at the apparently low incidences of infection set against the thousands of health care workers caring for AIDS patients in the United States today. For instance, a recent study examined the cases of 1,097 health care workers who were accidently exposed to blood or body fluids of infected patients. Of the 1,097, 959 were exposed to blood. Two hundred ninety-eight were tested, and only one, with a history of a needle prick, tested positive.

These studies do not prove conclusively that it is 100% impossible to transmit the virus in more casual ways, but in terms of a medical probability, which is all we ever really have to go on, I consider the chance to be so small as to be medically nonexistent. Obviously, however, if there were a serious chance of unprotected sex between officers and inmates, or other opportunities for the exchange of bodily fluids, that would present the danger of spreading the disease. In my opinion, even in light of the three new cases, the possibility of blood transfer between inmates and officers involved in a fight does not present a significant danger of contagion.

There is another important medical aspect to the problem here, and that is the need for education. Right now, without a cure or vaccine, the only way we have to stop the spread of this disease is to learn how to prevent its transmission. The terrifying increase in the number of cases of AIDS, as outlined in the National Centers for Disease Control Report, is proof of the fact that AIDS is no longer a danger to only the homosexual and drug user populations. For example, the most recent statistics released indicate that 10% of the male heterosexual population in the District of Columbia may be infected with the virus. We are all at risk and only when we begin to face the panic, such as exists in this prison with accurate facts about the transmission and prevention of the disease, can we hope to stop it. Giving in to the inmates' demands seems to me to indicate that their fears are justified, and what the prison administration should be doing is not encouraging fear and panic but educating the population about how to avoid infection.

Given the current state of scientific knowledge, I see no medical reason for Officer Barr to be terminated.

Defense Witnesses

Affidavit of Kit Zuff, Administrator,
District of Columbia Lorton Medium Security Facility:

I am currently the Administrator of the unit to which Dana Barr is assigned.

About four months ago, an incident occurred on Officer Barr's unit which resulted in injury to two inmates and one officer. According to Officer Barr's report, it started as a disagreement between two inmates who had been having trouble with one another. After Officer Barr tried to intervene and break it up, it escalated into a brawl involving nearly the entire unit. Officer Barr was unable to handle it alone, and called for help.

I had heard from the medical staff about Barr's test result, so I conducted an investigation of the incident, according to regulations, and discovered that the "fight" was really an inmate demonstration to have Barr removed from the unit. My investigation disclosed the fact that Officer Barr had to administer first aid, and that at least two of the inmates were bleeding. I held a meeting of the Inmate Council, at which I questioned several of the inmates, who told me that everyone on the unit knew about Barr's AIDS test results, and were afraid of catching the disease. I tried to calm them down, but they said they wouldn't stop until Barr had been removed.

A situation like this makes Barr totally ineffective as a corrections officer. One of the primary requirements of the job is to be able to command respect and exercise authority over the inmates. If they refuse to cooperate with an officer and are openly hostile and disobedient, it destroys the security of the unit, and potentially the entire institution. We can expect

repetitions of this incident over and over, until there will be complete chaos. It's true that there has been some slight increase in violent incidents in the prison recently, but nothing like what's happening on Barr's unit. Some of the increased unrest is due to the overcrowding that we are experiencing lately, and I believe that the rest is connected to the Barr issue. We have a responsibility to maintain order and security for the safety of the inmates and staff of the facility, and Barr's presence seriously compromises our ability to do that.

Officer Barr cannot be allowed to remain on active duty in an inmate-contact position. He is endangering the inmates and other staff not only by the inmates' reaction to him, but by the fact that there is the real danger of violence on the unit which could lead to bloodshed and possible infection of others with the AIDS virus. In the past, there have been some riots in this facility involving hundreds of inmates, which have resulted in serious injury to inmates and officers - officers had to give mouth to mouth resuscitation and dress bloody wounds. If something like that were to happen with Barr on the unit, there would be a clear danger of infection. Even the Department of Corrections Regulations says that an Officer is allowed to strike an inmate under certain circumstances - I think it's section 1.24. No matter how remote that possibility is, I feel it is my duty to try to prevent it.

Barr's past record is satisfactory, but not what I would call exemplary. I've had trouble with him before, several years ago, over a frivolous report he wrote accusing some officers in my unit of accepting bribes from the inmates. A few Officers were suspended at the time, but not specifically because of

Barr's report. Some of the inmates even filed complaints against him at that time, but I can't recall how they were resolved.

It's true that I denied Sergeant Fitzgerald permission to organize an AIDS education class. I had several reasons for coming to that decision. First, at the time he wanted to do it, feelings were still running pretty hot over the issue of Officer Barr, and I thought it would be best if the situation were allowed to cool down so that we could talk about it calmly and intelligently. Second, the administration was investigating several options regarding AIDS education, and we were evaluating which program best suited our needs. We felt it was important to choose a program that the inmates would react to without hostility. We are still engaged in the process of choosing a program.

In my opinion Officer Barr is unable to fulfill the responsibilities of the position of Line Corrections Officer and should be terminated. If we must rehire him, it has to be in a non-inmate contact position, such as in a guard tower or working in an administrative office. Both these jobs have potential for career advancement. For example, the Director of Finance for the whole Department of Corrections started as a finance clerk in the prison.

Affidavit of Randy Edwards, Head of the Inmate Council:

I am the head of the Inmate Council at the District of Columbia Lorton Medium Security Facility. I am serving a ten year sentence and will become eligible for parole in eight months.

The Inmate Council acts as a liaison between the inmates and the prison administration. We represent the interests of the inmates in things like living conditions, meals, education, etc. Membership on the Council isn't the same as it is with other groups - it's not open to everyone and we aren't elected by the inmates - we're appointed by tne prison administration, although the inmates can make recommendations for appointment. The reason that we don't hold elections is to make sure that representation on the council can't be "arranged" through deals or coercion, which is the way it was in the past, and the way it still is with some other groups that claim to represent the inmates.

There are some advantages to being on the Inmate Council. One is that we get first choice at some of the jobs in the institution. I chose to work in the prison library; before, I had to work in the laundry. Another is that we usually get individual cells. Also, membership on the Council is a real plus with the Parole Board when your case comes up for review.

After the riot on Officer Barr's unit, I met with Council representatives and the prison administration. Because Admninstrator Zuff had told us about Barr's AIDS test, we decided to hold individual interviews with the inmates involved, to protect identities and encourage them to tell us honestly what happened and how they felt. Nearly everyone agreed that the reason for the riot was that the inmates on that unit are afraid

of catching AIDS from Barr. They all know about his test results, and don't want him around them. They think that they will catch the disease from him if he coughs or sneezes on them, or if he touches them during a shakedown. Some of the inmates we talked to said they couldn't sleep at night and were panicking every time they got a cold or a sore throat. Some of them said that they heard rumors about threats made against Barr, also.

The Council has a responsibility to represent the best interests of the inmates, and after hearing from the inmates on the unit, we passed a resolution that Officer Barr be removed from active duty with inmates.

This is the only incident we have had in my memory that stemmed from the relationship between inmates and a corrections officer. All the others have been caused by conflicts between inmates, and anyway, all these reports of increased violence in the prison are an exaggeration.

As the only officially recognized representative body of the inmates in the facility, the Inmate Council recommends that Officer Barr be terminated.

Affidavit of Chris Sanger, Corrections Management Consultant, Corrections Management, Inc.:

I am a founding partner of Corrections Management, Inc. We are a privately owned corporation, providing consulting services to local and state corrections departments nationwide in areas such as institutional planning and design, inmate control, personnel training and practices, budgets, etc. Prior to my starting Corrections Management, Inc., I spent 10 years as a prison warden in a state prison in Oklahoma. Corrections Management, Inc. is currently under contract to provide management advice to the D. C. Department of Corrections and will receive $35,000 in 1987 for its services, and I am also being compensated for my testimony here today.

I have reviewed the facts of this case and am fully familiar with them. It seems to me that we have a potentially explosive situation here. According to the reports I read and inmates I have spoken with, there is a widespread perception on the part of the inmate population that Officer Barr has AIDS and that they are in danger of catching it. Violence is a major problem in the institution already, and in my opinion continuing Officer Barr as a corrections officer would create an atmosphere that is not conducive to maintaining security in the prison.

I believe that problems will come from other corrections officers as well as the inmates. In my professional experience, there is a panic that surrounds AIDS, unlike other diseases about which more is known, that tends to snowball and become unmanageable. At other types of institutions, such as schools or offices, it may be possible to control the situation, but a prison is a unique environment. The potential for violence is

always present, and very real. The very nature of the institution requires that prison administrations be given broad discretion in matters that threaten the security of inmates and staff. We can't "close down" for a couple of days to allow tempers to cool and to allow discussion, nor can we expect prison administrations to allocate huge percentages of their tight budgets to maintain security for an officer who is met with constant fear, hostility, and disobedience from the inmates he or she is supposed to control. Such a suggestion is well beyond any idea of what a "reasonable accommodation" is.

In this facility there are 1300 prisoners. On each shift, there are 75 unarmed corrections officers guarding them. This is a standard ratio, given the average operating budgets of prisons across the country. When you think about it, you can see that in order to maintain security, a high degree of cooperation from the inmates themselves is required, because obviously, 1300 against 75 isn't much of a fight. It's a fact of life in most prisons that the inmates can stage large scale riots and cause tremendous damage. Several years ago there was a riot in this facility involving hundreds of inmates in which two or three inmates died. The violence that occurred then could happen again, especially over an issue like AIDS. If you take a look at the statistics regarding the incidence of violence at the prison over the last several years, you will see that there has been an average of 1.5 reported incidents per month. (The general downward trend may be due to modernizing some management techniques. Very recently, there has been a slight increse in violent incidents. Although the cause of the increase is somewhat unclear, the fact that there is an increase makes Barr's presence more dangerous.) That

is slightly above what is considered "normal" for a medium security facility. Actually, the only reported incidents are those considered worthy of referral for criminal prosecution. There are many other occurrences of aggressive physical contact every month that go unreported. The danger of continued violence at the prison is very real. The prison administration must be given broad discretion because of its responsibility for the safety of the inmates, who are not in the institution voluntarily, but are required to be there.

The policy question in my mind is this - just how much of a burden is an individual employer expected to bear in the face of an international health crisis such as AIDS? The issues are endless, for example:

1. The potential cost in terms of insurance and absenteeism is enormous. Employers simply can't afford to support those costs throughout the entire course of the disease.

2. The employer may have an affirmative duty to inform co-workers of the fact that someone in the institution has AIDS or is seropositive, to protect himself from possible liability in the future.

3. The employer may have to resort to requiring HIV-testing for all employees, as a condition for hiring or continued employment. The cost of such testing is huge.

4. It may not be feasible, or even possible to adapt the workplace for a worker with AIDS.

5. Employers cannot be expected to handle the fears and panic, legitimate or otherwise, that AIDS seems to cause.

These are issues that put the employer in an untenable position, not least because there is still so much that is not known about AIDS and how it is transmitted. From a management standpoint, it's an employer's nightmare and one that a prison administration is in no position to resolve by itself. It's true

that there are programs that have been developed for employers to use to educate their work staff, but none that I have seen is really appropriate for a prison setting. The issues are different - the proximity of inmates to one another, and the danger of violence, for example, and I wouldn't recommend any of them for this facility. My company is in the process of developing a curriculum especially designed for prisons which should be available in about six months.

My recommendation is that Officer Barr be terminated.

Legal Authorities

District of Columbia Human Rights Act

Mission of the D.C. Human Rights Act: It is the intent of the District of Columbia in enacting this Act to secure an end to discrimination for any reaon other than that of individual merit, including discrimination by reason of physical handicap.

Section 11.1(a): It shall be an unlawful discriminatory practice to refuse to hire, or to discharge, any individual, or otherwise to discriminate against any individual, for a reason based on his or her race, color, religion, national origin, sex, age, marital status, personal appearance, sexual orientation, family responsibilities, physical handicap, matriculation or political affiliation.

Title 1, Chapter 25, Section 1-2502(23) defines a physical handicap as: "A bodily or mental disablement which may be the result of injury, illness or congenital condition for which reasonable accommodation can be made." Within this definition, a person who suffers a "bodily or mental disablement" due to an "illness" related to the AIDS disease is handicapped under the Act.

D.C. Government Comprehensive Merit Act of 1978

A permanent employee in the Career or Educational Services who is not serving a probationary period may be suspended for more than thirty (30) days, reduced in rank or pay, furloughed without pay or removed from the service only for cause. For the purpose of this section, the definition of cause shall include:

1. incompetency;
2. inefficiency;
3. inexcusable neglect of duty;
4. lack of dependability;
5. misuse of official position or unlawful coercion of an employee for personal gain or benefit.

D.C. Department of Corrections Basic Regulations for All Employees

Employees are required to maintain the security, decorum and discipline of inmates who are under their direct supervision or who frequent the area of their assignment, including search of their persons as prescribed.

E.E. Black, Ltd. v. Marshall,
U.S. District Court, Hawaii, (1980)

"The intent of the Federal law in prohibiting discrimination against the handicapped was to protect people who are denied employment because of an employer's perceptions, whether or not those perceptions are accurate. It is of little solace to a person denied employment to know that the employer's view of his or her condition is erroneous. To such a person the perception of the employer is as important as reality.

"We therefore hold that it was unlawful discrimination for the employer to fire the employee, even though the employee was not actually handicapped, but only perceived by his employer to be handicapped.

Shipman School v. Palmese
U.S. District Court, New York, (1981)

"Employment discrimination statutes permit the exclusion of a handicapped person if (1) that person cannot physicaly perform the job; (2) the person's presence creates a health or safety problem for himself or others; or (3) the special problems created by a person with the handicap could not be accommodated without undue burden on the employer."

Pell v. Procunier
U.S. Supreme Court

"In determining whether restrictions or conditions are reasonably related to the government's interest in maintaining security and order and operating the jail in a manageable fashion, courts must heed our warning that 'such considerations are peculiarly within the province and professional expertise of corrections officials, and, in the absence of substantial evidence in the record to indicate tht the officials have exaggerated their response to these considerations, courts should ordinarily defer to their expert judgment in such matters.'"

NATIONAL CENTERS FOR DISEASE CONTROL
STATISTICAL REPORT

Introduction

AIDS - Acquired Immune Deficiency Syndrome - is a deadly, new disease now spreading rapidly around the world. At present there is no cure or vaccine.

As of August 1986, 71 countries had reported almost 29,000 cases of AIDS. Cases have been reported on all continents. Currently the largest numbers have been reported in the United States, Western Europe, Central Africa, Brazil and Haiti. Worldwide, as many as five to ten million people may be infected with the virus that causes AIDS (HIV). Most of these people have no symptoms now but can infect others with the virus. In the United States, more than 270,000 AIDS cases are expected by 1991.

Transmission

Most reported cases of AIDS have been sexually transmitted. Only the most intimate contact, usually involving the transfer of semen or blood from one person to another, can spread the virus. Thus, AIDS is not a highly contagious disease. Unlike the virus that causes measles, for example, HIV cannot be transmitted through casual contact, by insects or by food or water. The virus is transmitted in the following ways:

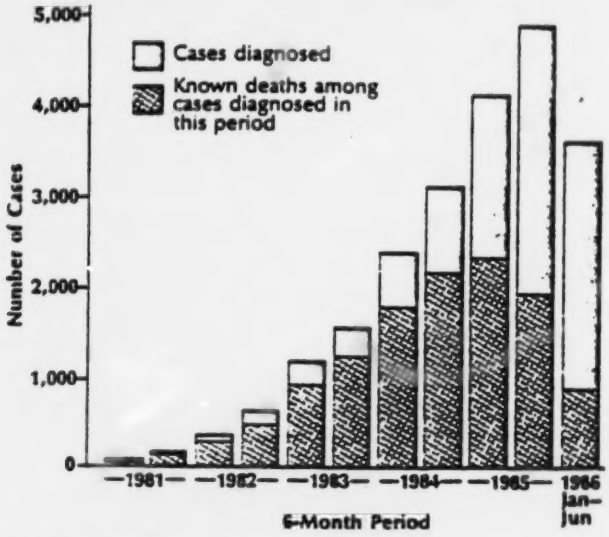
1. by sexual intercourse;
2. by transfusions of contaminated blood or blood products;
3. by sharing or reusing contaminated hypodermic needles;
4. during pregnancy, childbirth and possibly breastfeeding, from mother to child.

It is not known whether other sexual activities, such as kissing, transmit the virus. In the 1% of cases which do not fall into one of the identified risk groups, it is strongly suspected that transmission was due to unreported sexual activity or IV drug use.

Casual contact or even close family contact have not been shown to spread HIV. To transmit the virus, infected cells or viral particles must pass into the tissue or bloodstream of another person. More than 10 studies involving some 600 family members of people with AIDS have shown no evidence at all of transmission of the virus except to sexual partners or children born to an infected mother. Living in very crowded conditions and sharing bathroom, kitchens, eating utensils, plates, drinking glasses, and personal items such as combs, towels, and even razors and toothbrushes with infected persons before and after they developed AIDS, has not led to infection - the virus is too fragile. There also is no evidence that the virus can be spread in food or beverages.

Statistics

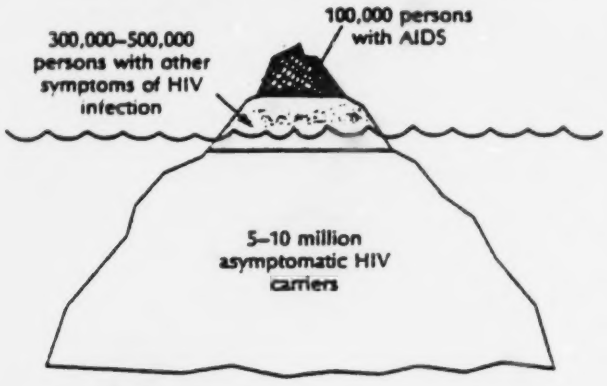
Figure 2. AIDS Cases Reported to the US Centers for Disease Control, by Period of Diagnosis, and Known Deaths Among Those Cases, United States, 1981–1986



Source: US Centers for Disease Control (559, 560)

The number of reported cases of AIDS has increased rapidly in the US. Most cases reported before 1985 have died. A lag in reporting probably explains the apparent decline in January–June 1986.

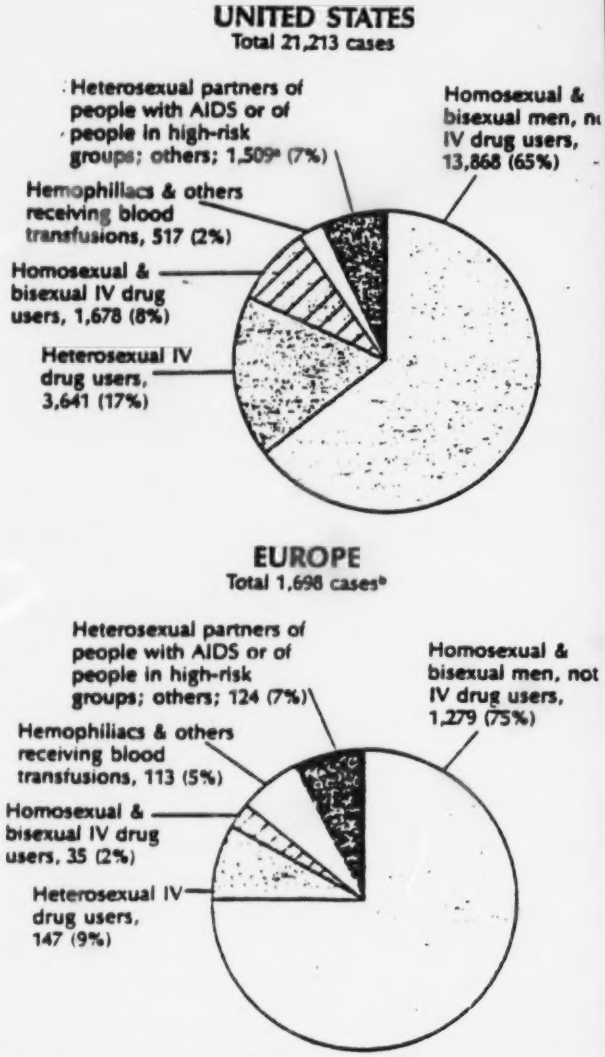
Figure 1. Estimated Numbers of Persons with AIDS, of Persons with Other Symptoms of HIV Infection, and of Asymptomatic HIV Carriers, World, Early 1986


100,000 persons with AIDS
300,000–500,000 persons with other symptoms of HIV infection
5–10 million asymptomatic HIV carriers

Source: Mahler (642)

The number of persons with AIDS is the tip of the iceberg. Three to five times as many people have other symptoms of infection with HIV, the virus that causes AIDS. Five to ten million carry the virus and can transmit it but have not developed symptoms.

Figure 3. Classification of Reported Cases of AIDS Adults, United States and Europe, as of 1985–1986


UNITED STATES
Total 21,213 cases
Heterosexual partners of people with AIDS or of people in high-risk groups; others; 1,509[a] (7%)
Homosexual & bisexual men, no IV drug users, 13,868 (65%)
Hemophiliacs & others receiving blood transfusions, 517 (2%)
Homosexual & bisexual IV drug users, 1,678 (8%)
Heterosexual IV drug users, 3,641 (17%)
EUROPE
Total 1,698 cases[b]
Heterosexual partners of people with AIDS or of people in high-risk groups; others; 124 (7%)
Homosexual & bisexual men, not IV drug users, 1,279 (75%)
Hemophiliacs & others receiving blood transfusions, 113 (5%)
Homosexual & bisexual IV drug users, 35 (2%)
Heterosexual IV drug users, 147 (9%)

Note: US data as of June 1986; source: US CDC (559). European data as of December 31, 1985; source: WHO (603).

[a] Includes 472 Africans and Haitians not in other risk groups
[b] Includes only those born in Europe for whom information is available. Excludes 279 cases reported among persons born elsewhere and 29 cases with no information.

Cases of AIDS have been categorized into five groups by the US CDC. No categorization is available for Africa, but most cases probably became infected through heterosexual intercourse.

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C. AIDS CASES BY STATE OF RESIDENCE AND DATE OF REPORT TO CDC

STATE OF RESIDENCE	Year Ending FEB 2, 1986		Year Ending FEB 2, 1987		CUMULATIVE TOTAL SINCE JUNE 1981					
					Adult/Adolescent		Children		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
New York	2617	(29.7)	3891	(28.9)	9452	(31.5)	160	(36.6)	9612	(31.6)
California	2039	(23.1)	2912	(21.6)	6749	(22.5)	25	(5.7)	6774	(22.3)
Florida	602	(6.8)	847	(6.3)	1949	(6.5)	58	(13.3)	2007	(6.6)
New Jersey	505	(5.7)	808	(6.0)	1763	(5.9)	61	(14.0)	1824	(6.0)
Texas	522	(5.9)	873	(6.5)	1777	(5.9)	11	(2.5)	1788	(5.9)
Illinois	194	(2.2)	387	(2.9)	749	(2.5)	6	(1.4)	755	(2.5)
Pennsylvania	231	(2.6)	260	(1.9)	643	(2.1)	8	(1.8)	651	(2.1)
Massachusetts	160	(1.8)	306	(2.3)	600	(2.0)	12	(2.7)	612	(2.0)
Georgia	187	(2.1)	313	(2.3)	591	(2.0)	9	(2.1)	600	(2.0)
District of Columbia	184	(2.1)	229	(1.7)	527	(1.8)	8	(1.8)	535	(1.8)
Maryland	161	(1.8)	164	(1.2)	410	(1.4)	6	(1.4)	416	(1.4)
Washington	134	(1.5)	165	(1.2)	368	(1.2)			368	(1.2)
Louisiana	115	(1.3)	174	(1.3)	357	(1.2)	6	(1.4)	363	(1.2)
Connecticut	95	(1.1)	172	(1.3)	346	(1.2)	12	(2.7)	358	(1.2)
Virginia	118	(1.3)	158	(1.2)	344	(1.1)	6	(1.4)	350	(1.2)
Puerto Rico	95	(1.1)	117	(0.9)	294	(1.0)	18	(4.1)	312	(1.0)
Colorado	60	(0.7)	183	(1.4)	309	(1.0)	2	(0.5)	311	(1.0)
Ohio	65	(0.7)	183	(1.4)	301	(1.0)	1	(0.2)	302	(1.0)
Michigan	65	(0.7)	146	(1.1)	258	(0.9)	3	(0.7)	261	(0.9)
North Carolina	67	(0.8)	93	(0.7)	187	(0.6)	2	(0.5)	189	(0.6)
Arizona	49	(0.6)	82	(0.6)	164	(0.5)			164	(0.5)
Minnesota	54	(0.6)	87	(0.6)	160	(0.5)			160	(0.5)
Missouri	52	(0.6)	71	(0.5)	159	(0.5)	1	(0.2)	160	(0.5)
Indiana	28	(0.3)	72	(0.5)	130	(0.4)	2	(0.5)	132	(0.4)
Oregon	36	(0.4)	60	(0.4)	119	(0.4)			119	(0.4)
Hawaii	30	(0.3)	66	(0.5)	115	(0.4)	1	(0.2)	116	(0.4)
South Carolina	43	(0.5)	46	(0.3)	105	(0.4)	4	(0.9)	109	(0.4)
Tennessee	29	(0.3)	64	(0.5)	100	(0.3)	1	(0.2)	101	(0.3)
Wisconsin	20	(0.2)	54	(0.4)	90	(0.3)			90	(0.3)
Oklahoma	21	(0.2)	54	(0.4)	88	(0.3)	1	(0.2)	89	(0.3)
Alabama	26	(0.3)	35	(0.3)	73	(0.2)	2	(0.5)	75	(0.2)
Nevada	17	(0.2)	38	(0.3)	68	(0.2)			68	(0.2)
Kentucky	21	(0.2)	26	(0.2)	62	(0.2)			62	(0.2)
Kansas	12	(0.1)	37	(0.3)	55	(0.2)	1	(0.2)	56	(0.2)
Rhode Island	13	(0.1)	32	(0.2)	56	(0.2)			56	(0.2)
Utah	20	(0.2)	24	(0.2)	51	(0.2)	3	(0.7)	54	(0.2)
New Mexico	14	(0.2)	32	(0.2)	51	(0.2)			51	(0.2)
Delaware	15	(0.2)	24	(0.2)	46	(0.2)			46	(0.2)
Arkansas	16	(0.2)	27	(0.2)	44	(0.1)			44	(0.1)
Mississippi	9	(0.1)	29	(0.2)	43	(0.1)			43	(0.1)
Iowa	13	(0.1)	18	(0.1)	35	(0.1)	1	(0.2)	36	(0.1)
Maine	13	(0.1)	22	(0.2)	35	(0.1)	1	(0.2)	36	(0.1)
Nebraska	9	(0.1)	13	(0.1)	25	(0.1)			25	(0.1)
New Hampshire	5	(0.1)	15	(0.1)	23	(0.1)	2	(0.5)	25	(0.1)
Alaska	5	(0.1)	16	(0.1)	24	(0.1)			24	(0.1)
West Virginia	6	(0.1)	10	(0.1)	20	(0.1)	2	(0.5)	22	(0.1)
Vermont	3	(0.0)	4	(0.0)	9	(0.0)			9	(0.0)
Idaho	4	(0.0)	3	(0.0)	6	(0.0)	1	(0.2)	7	(0.0)
Montana	1	(0.0)	6	(0.0)	7	(0.0)			7	(0.0)
Virgin Islands	2	(0.0)	3	(0.0)	7	(0.0)			7	(0.0)
Wyoming	2	(0.0)	3	(0.0)	6	(0.0)			6	(0.0)
North Dakota	3	(0.0)	1	(0.0)	4	(0.0)			4	(0.0)
South Dakota	1	(0.0)	2	(0.0)	3	(0.0)			3	(0.0)
Guam	1	(0.0)			1	(0.0)			1	(0.0)
Trust Territory					1	(0.0)			1	(0.0)
TOTAL	8809	(100.0)	13457	(100.0)	29959	(100.0)	437	(100.0)	30396	(100.0)

SURVEY OF VIOLENCE AT LORTON MEDIUM SECURITY FACILITY
1980-1986

This report was prepared for the District of Columbia Department of Corrections by Corrections Management, Inc. It follows the Department policy of defining "violent incidents" as those altercation between inmates, or inmates and staff which are worthy of referral for criminal prosecution. Records are kept only of "violent incidents" as defined above.

1980
Number of Reported Incidents: 20
Personal Injuries: 18
Hospitalizations: 10
Deaths: 1

1981
Number of Reported Incidents: 20
Personal Injuries: 20
Hospitalizations: 6
Deaths: 6

1982
Number of Reported Incidents: 18
Personal Injuries: 18
Hospitalizations: 6
Deaths: 0

1983
Number of Reported Incidents: 17
Personal Injuries: 16
Hospitalizations: 7
Deaths: 0

1984
Number of Reported Incidents: 14
Personal Injuries: 13
Hospitalizations: 5
Deaths: 1

1985
Number of Reported Incidents: 12
Personal Injuries: 12
Hospitalizations: 6
Deaths: 0

1986
Number of Reported Incidents: 10
Personal Injuries: 10
Hosptalizations: 3
Deaths: 0

AIDS KNOWLEDGE ASSESSMENT

True or False:

1_____ Approximately 10% of reported AIDS cases in the U.S. have been attributed strictly to heterosexual transmission.

2_____ Blacks and Hispanics account for nearly 40% of all diagnosed AIDS cases in the U.S.

3_____ Some now estimate that upwards of 2 million Americans are infected with the virus that causes AIDS.

4_____ The presence of the antibody to the AIDS virus often means that the person is immune from infection.

5_____ The Western Blot is considered a confirmatory test for antibody to the AIDS virus.

6_____ If two people in a mutually monogamous relationship are both infected with the AIDS virus, there is no reason to recommend they observe safer sex guidelines.

7_____ Abstinence from sex with any partners is the surest way to protect oneself from contracting AIDS.

8_____ Several investigators have shown that over half of those who test seropositive to HIV will go on to develop AIDS within one year of antibody detection.

9_____ The danger of spreading HIV to uninfected persons is the only major justification for infected individuals to observe risk reduction guidelines.

10_____ A negative AIDS antibody test means that a person has not been infected with the AIDS virus.

11_____ Members of high risk groups who test negative for AIDS antibodies should not donate blood.

12_____ It is now considered true that certain behaviors, rather than membership in a "high-risk" group, puts a person at risk for contracting AIDS.

13_____ The distribution of opportunistic diseases seen in men with AIDS differs from that seen in women with AIDS.

14_____ AIDS is now spreading more rapidly among heterosexuals than among homosexuals.

15_____ There is virtually no danger any longer of contracting AIDS from donating blood or receiving a transfusion.

16_____ Studies have shown that AIDS is not spread by even such close contact as kissing and sharing eating utensiles.

---

17 The period of time from exosure to the virus until onset of AIDS has been shown to vary from _____ to _____ years.

18 The incubation period from exposure to the AIDS virus to a positive antibody test result has been shown to be about _____.

19 The approximate percentage of people who have a positive antibody test who will go on to develop AIDS is _____.

20 Cases of pediatric AIDS may be

a. acquired by blood transfuion.
b. seen in hemophiliacs.
c. acquired transplacentally.
d. a result of infected breast milk.
e. all of the above.

* Note: These answers are curr
to May, 1987, and may
change due to ongoing
research and data
collection.

AIDS KNOWLEDGE ASSESSMENT

True or False:

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2 T Blacks and Hispanics account for nearly 40% of all diagnosed AIDS cases in the U.S.

3 T Some now estimate that upwards of 2 million Americans are infected with the virus that causes AIDS.

4 F The presence of the antibody to the AIDS virus often means that the person is immune from infection.

5 T The Western Blot is considered a confirmatory test for antibody to the AIDS virus.

6 F If two people in a mutually monogamous relationship are both infected with the AIDS virus, there is no reason to recommend they observe safer sex guidelines.

7 T Abstinence from sex with any partners is the surest way to protect oneself from contracting AIDS.

8 F Several investigators have shown that over half of those who test seropositive to HIV will go on to develop AIDS within one year of antibody detection.

9 F The danger of spreading HIV to uninfected persons is the only major justification for infected individuals to observe risk reduction guidelines.

10 F A negative AIDS antibody test means that a person has not been infected with the AIDS virus.

11 T Members of high risk groups who test negative for AIDS antibodies should not donate blood.

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15 T There is virtually no danger any longer of contracting AIDS from donating blood or receiving a transfusion.

16 T Studies have shown that AIDS is not spread by even such close contact as kissing and sharing eating utensiles.

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17 The period of time from exosure to the virus until onset of AIDS has been shown to vary from 1 to 5 or longer years.

18 The incubation period from exposure to the AIDS virus to a positive antibody test result has been shown to be about 2 weeks – 6 months, although in rare cases it has taken us to 2.

19 The approximate percentage of people who have a positive antibody test who will go on to develop AIDS is unknown, but estimates range from 10-50% of seropositive individuals will develop AIDS within 10 years

20 Cases of pediatric AIDS may be

a. acquired by blood transfuion.
b. seen in hemophiliacs.
c. acquired transplacentally.
d. a result of infected breast milk.
(e.) all of the above.

AIDS Fact Sheet

AIDS (Acquired Immune Deficiency Syndrome) is a fatal disease which damages the body's immune system, leaving the individual unable to resist or fight off other diseases.

AIDS is caused by a virus called Human Immunodeficiency Virus, or HIV for short. The virus is also referred to as HTLV-III and LAV, although HIV is the currently preferred term. There is no known cure for AIDS, and no vaccine to prevent it has been developed yet.

At the beginning of 1986, there were 17,000 reported AIDS cases in the United States causing 9,000 AIDS-related deaths. By the end of 1986, there were approximately 30,000 reported cases in the United States. Almost 16,000 of these AIDS patients have died as a result of the disease. By the end of 1991 it is estimated that thre will be 270,000 AIDS cases in this country causing 170,000 deaths.

Members of certain groups are considered to be at higher risk for contracting the disease. These groups include intravenous drug users, homosexual and bisexual men, recipients of blood products (hemophiliacs and those in need of transfusions) and babies born to mothers with AIDS. (Blood transfusions have become a virtually impossible way to transmit AIDS now that blood donations are screened for the virus.)

These categories are misleading, however, because it is not membership in one of the groups that puts a person at risk for the disease, but <u>certain types of behavior</u> that allow the disease to spread from one person to another.

AIDS is <u>not</u> transmitted by casual, or even "close" contact, such as being in the same room, casual touching, sneezing, spitting, sharing eating utensiles, or kissing. For AIDS to spread from one person to another there needs to be an exchange of bodily fluids such as blood or semen. Activities that are considered potentially dangerous include unprotected sexual intercourse and sharing hypodermic needles. Also, an infected mother may transmit the disease to her baby before or during birth, or when breastfeeding.

There is <u>no</u> test currently available that will tell somebody if he or she has AIDS. There is a test, called the HIV-antibody test, that indicates whether someone has developed <u>antibodies</u> to the HIV virus. Whenever a virus enters a body, the immune system tries to fight it by attacking it with antibodies. A positive result on the HIV-antibody test means that at one time that person was exposed to the virus that causes AIDS. It does <u>not</u> mean that he or she has the disease, or ever will have it. It simply means that that that person has been exposed to it, and can spread it to others.

During the incubation period of the disease, which may range from a few months to five years or longer, there may be no telltale signs that suggest a person is suffering from AIDS or has been infected with HIV.

If the infected person comes down with the disease, symptoms become apparent. People with AIDS may notice severe, prolonged and persistent nights sweats, fever, rapid weight loss for no apparent reason, swollen lymph glands, constant fatigue, diarrhea and diminished appetite, and white spots or unusual blemishes in the mouth.

An AIDS patient's immune system becomes severely weakened, turning normally mild, harmless, and rare diseases into potentially fatal conditions. The two most common illnesses of this type are:

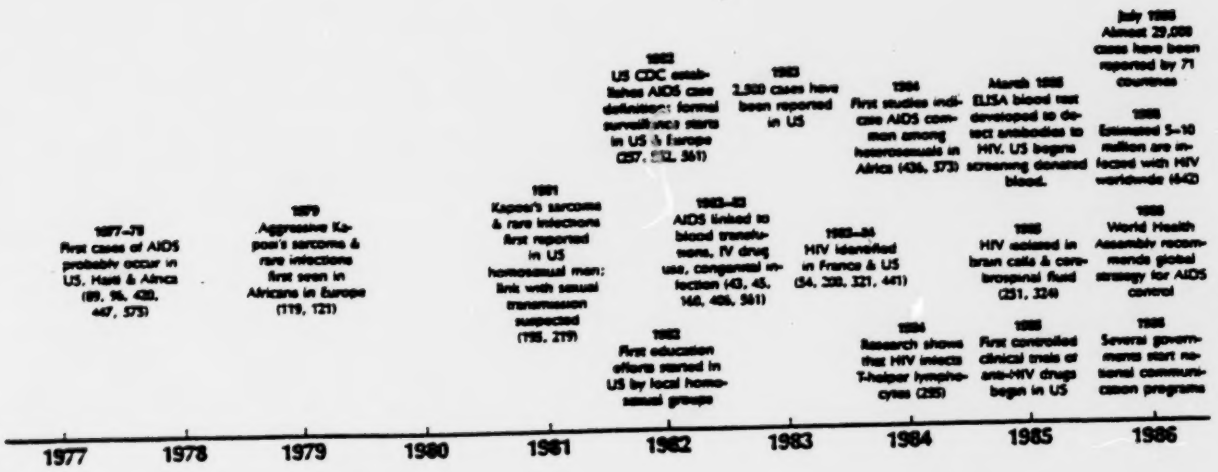
Kaposi's sarcoma, a form of cancer that causes pink, brown or purplish skin blotches. In the past, this disease had been very rare.

Pneumocystis Carinii, a type of pneumonia that is highly uncommon among healthy individuals.

New evidence shows that HIV may also attack the nervous system, causing damage to the brain and spinal cord. Signs of damage may include memory loss, indifference, inability to make decisions, partial paralysis, loss of coordination, and other problems in controlling the body.

The Public Health Service makes the following recommendations to reduce the chances of contracting or transmitting AIDS:

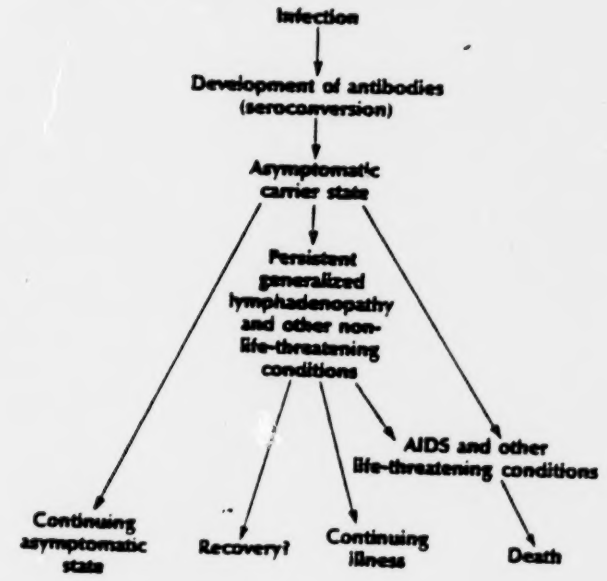
- Do not have sexual contact with persons who are known to have or are suspected of having AIDS;
- Do not have sex with multiple partners or with persons who have had multiple partners (including prostitutes). The more partners you have, the greater your risk of contracting AIDS.
- Do not inject illicit drugs. If you do inject drugs never use someone else's hypodermic needle, or allow anyone to use yours.
- Do not have sex with people who inject drugs (including prostitutes).
- Protect yourself and your partner during sexual activity by always using a condom.


1977–79
First cases of AIDS probably occur in US, Haiti & Africa (89, 96, 420, 447, 575)
1979
Aggressive Kaposi's sarcoma & rare infections first seen in Africans in Europe (119, 121)
1981
Kaposi's sarcoma & rare infections first reported in US homosexual men; link with sexual transmission suspected (198, 219)
1982
US CDC establishes AIDS case definition; formal surveillance starts in US & Europe (257, 532, 561)
1982
First education efforts started in US by local homosexual groups
1982–83
AIDS linked to blood transfusions, IV drug use, congenital infection (43, 45, 160, 406, 561)
1983
2,500 cases have been reported in US
1983–84
HIV identified in France & US (54, 208, 321, 441)
1984
First studies indicate AIDS common among heterosexuals in Africa (436, 573)
1984
Research shows that HIV infects T-helper lymphocytes (295)
March 1985
ELISA blood test developed to detect antibodies to HIV. US begins screening donated blood.
1985
HIV isolated in brain cells & cerebrospinal fluid (251, 324)
1985
First controlled clinical trials of anti-HIV drugs begin in US
July 1986
Almost 29,000 cases have been reported by 71 countries
1986
Estimated 5–10 million are infected with HIV worldwide (640)
1986
World Health Assembly recommends global strategy for AIDS control
1986
Several governments start national communication programs
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986

290,000 cases expecte in 1990

AIDS Time Line

Figure 5. Natural History of Infection with HIV



Source: adapted from Bartlett (56)

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AIDS GLOSSARY

AIDS	The commonly used term for Acquired Immune Deficiency Syndrome, a disease that attacks the body's ability to resist infections.
Antibody	A substance produced by the body in response to exposure to a virus or germ; the job of the antibody is to fight the virus and protect the person from illness.
Carrier	A person who has been infected with HIV; carriers are able to transmit the virus to others even if they have no symptoms themselves and do not develop the disease.
ELISA Test	See HIV-Antibody Test
HIV	Commonly used abbreviation for Human Immunodeficiency Virus, the technical name for the virus that causes AIDS. (Also called HTLV-III or LAV.)
HIV-Antibody	The name of the antibody produced by the body after it has been exposed to the virus that causes AIDS.
HIV-Antibody Test	(Also referred to as the ELISA Test, or the HTLV-III Antibody test) A blood test that indicates whether the body has produced antibodies to the AIDS virus, which also indicates whether a person has been exposed to the virus. This test does not indicate whether a person has AIDS, only whether he or she has been exposed to the virus. A person who has been exposed to the virus and has developed the antibody to it is referred to as "HIV positive," "Antibody positive," "HTLV positive," or "Sero-positive."
HIV positive	Term referring to a person who has been infected with HIV and whose body has produced the antibody to it.
HTLV-III	The name previously given to the HIV virus. These two terms are interchangeable, aothough HIV is the term now preferred by the medical establishment.
LAV	See HIV
Sero-Positive	See "HIV positive".
Western Blot Test	A test that is used to confirm the results of a positive HIV-antibody test.

SHOULD I TAKE THE TEST?

Whether or not to be tested for HIV-antibodies is a personal decision. There are arguments on both sides of the question, and you must determine for yourself the value the test and the results will have for you.

In order to make an informed decision, you need to know what the test will and will not tell you. As we discussed in class, the HIV-antibody (or ELISA) test does not tell you if you have AIDS. It does indicate if you have been exposed to the AIDS virus, by measuring whether your body has produced HIV-antibodies. A positive test result does not mean that you will develop the disease. You may be an asymptomatic carrier of the virus, that is, someone who has been infected with the HIV but has not developed any symptoms. However, everyone who tests positive is able to transmit the virus to others.

What are some of the reasons not to take the test? First, whatever the results, positive or negative, your behavior should always protect you and others against the virus. That means that even if you test negative, you still practice only protected sex if you are sexually active, and, if you use IV drugs, you never share needles. It also means that you should limit your sexual activity in terms of the number of partners you have, and to those partners whose histories you are familiar with. Remember, the fewer partners you have, the lower your chance of being infected.

If you test positive, it does not mean that you are immune. It also doesn't mean that you don't need protection from now on. Asyomptomatic carriers of HIV who practice unsafe sex or who share needles run the risk of reinfecting themselves and becoming symptomatic. Similarly, people with AIDS who continually reinfect themselves usually contract one of the opportunistic infections more quickly.

So why take the test? Number one, if it will make you feel beter, more at ease, less anxious, take the test. If you are pregnant, or are planning to start a family, take the test. If you are planning to start a long term, monogamous relationship, such as marriage, and you want to be able to tell your spouse your test status, take the test.

But remember, if you take the test: it takes from two weeks to six months from the time of infection for HIV-antibodies to show up in your blood. That means that if you are tested today, you need to be tested again six months from your last unsafe contact, and you need to practice only protected activity from now on.

For information on testing, and on any other issues concerning AIDS, call the Whitman-Walker Clinic, 332-AIDS.

GEORGETOWN UNIVERSITY LAW CENTER LAW WEEKLY

April 20, 1987

Clinic Instructs And Informs Teenagers

In July 1986 there were 29,000 reported cases of AIDS throughout the world. By 1991 there will be nearly 300,000 cases in the United States alone. There is no cure and no vaccine.

Sound scary? Listen to this: right now, an estimated 5 to 10 million people worldwide carry the AIDS virus and are capable of transmitting it to others. How is the virus transmitted? Who is at risk? Is it dangerous to work with someone who has AIDS? How about working with a carrier of the virus? Can an employer fire a person because he or she has AIDS? What are some of the ways the legal system deals with issues related to AIDS?

These are the questions we must answer as we face the worst public health crisis ever to confront the United States. High school students in the District who take Street Law, a year-long course taught by Georgetown law students as part of the Street Law Clinic, have learned the answers to these and many more questions as they prepared for the 16th annual Mock Trial program.

Photo by Emily Troxell

High school students participating in the Street Law Moot Court program await the verdicts from the judges.

The Mock Trial, co-sponsored by the D.C. Street Law Project and the D.C. Public Schools, is a yearly competition among all 21 Street Law classes. The winning plaintiff and defendant teams compete in a final round, the winner of which goes on to the National Mock Trial Competition.

This year's finalists were Coolidge High School (plaintiff) and Ballou High School (defendant). At the finals held on April 15, presided over by District of Columbia Superior Court Judge Reggie Walton, the team from Coolidge emerged victorious.

The hypothetical problem for 1987 involved a claim of wrongful discharge by a D.C. corrections officer who has tested positive on the AIDS-antibody test. He has been fired by the prison administration, who claims that the inmates on his unit are afraid of catching AIDS from him and are rioting to have him removed.

The prison administration also charged that Officer Barr presents a risk of spreading AIDS throughout the institution. Officer Barr contends that his AIDS condition was a pretext and that he was fired for reasons of personal conflict with an administrator. Additionally, Barr contends that being fired for testing positive on the AIDS-antibody test constituted illegal discrimination under the D.C. Human Rights Act.

The Street Law Project chose the topic for several reasons. First, it presented an excellent opportunity to teach students the facts regarding AIDS, enabling them to bring to their communities accurate information about the cause and prevention of the disease, and ways of responding rationally to the issues it raises.

Second, students learned valuable concepts of law and policy related to the employment and prison law issues involved in the case. Law students also came away from the experience with increased knowledge not only about AIDS, but also about the talents and abilities of their high schools students. One Clinic student summed it up this way: "It was the best thing I've done in law school."

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AIDS
Just the facts

. . . from specialists at Johns Hopkins

By Ann Finkbeiner

Knowledge is the best protection against both AIDS and fear of AIDS. Please Xerox, reprint, and otherwise pass along these pages.

What is AIDS and how serious is it?

AIDS is the end result of a disease caused by a virus.

Early symptoms of the disease process include swollen lymph glands (lymphadenopathy), weight loss, fever, and diarrhea. Of patients with these symptoms, a minority go on to get AIDS—Acquired Immune Deficiency Syndrome—within five years. In AIDS, patients get opportunistic infections (so-called because they seize the opportunity offered by the patient's weakened state). Most common are a fatal protozoan pneumonia (*Pneumocystis carinii*) and a rare cancer of the skin's blood vessels (Kaposi's sarcoma). Others are herpes, toxoplasmosis, shingles, tuberculosis, thrush, and other infections to be discussed below. These infections move in because the virus has shut down the immune system.

All viruses have preferences for certain cells: cold viruses attack upper respiratory cells, while flu viruses zoom in on gastrointestinal cells. The virus that causes AIDS kills certain cells in the immune system called T helper cells, whose job is to communicate between the cells that begin the immune reaction and those that turn it off again. Loss of the T helper cells disrupts the entire immune cycle. The AIDS patient, with no way to fight off the infections that surround us all the time, eventually dies.

The virus that causes AIDS was first isolated in 1983, in France by Luc Montagnier and colleagues at the Pasteur Institute. It was isolated again and its association with AIDS proven in 1984, in the U.S. by Robert Gallo and colleagues at the National Cancer Institute. Montagnier named the virus the Lymphadenopathy-Associated Virus (LAV), and Gallo named it the Human T-cell Leukemia Virus-III because he thought it resembled the leukemia viruses, HTLVs I and II. Because the virus does not cause leukemia, the L now stands for "lymphotropic" or lymphocyte-seeking, and the accepted name is an awkward HTLV-III/LAV. There is now some dispute about who really found the virus first, the National Cancer Institute or the Pasteur Institute.

Infection by the HTLV-III/LAV virus takes several forms; AIDS is only one of them.

(1) Some researchers suspect that the earliest form of HTLV-III/LAV infection occurs within a few weeks of exposure to the virus. Some patients develop an acute syndrome that resembles infectious mononucleosis—fever, diarrhea, weakness, lymphadenopathy. However, says John Bartlett, head of Infectious Diseases at the Johns Hopkins School of Medicine, "these symptoms are the least well-verified form of the disease." After four to six weeks, those symptoms disappear, and by that time the patient has developed antibodies to the virus.

(2) The antibodies, though they show up in a diagnostic blood test, do not seem to harm the virus. Nor does the virus seem to harm the person, who remains well but is presumably infectious. This state, which may last for months or years, is called the asymptomatic carrier state. The federal Centers for Disease Control (CDC) estimate that up to a million people in the U.S. may be carriers. After six months to perhaps 15 years, a small percentage—"underline *small*, right now maybe 2 to 4 percent a year," says Thomas Quinn, Bartlett's colleague in Infectious Diseases—of asymptomatic carriers go on to develop the third form of HTLV-III/LAV infection.

(3) This third form is called ARC, for AIDS-Related Complex. Patients may have swollen lymph glands (lymphadenopathy), or diarrhea, fever, weight loss, and general fatigue. It's not unlike a bad bout of flu, except that it persists. Some people suffer from ARC for years, while others seem to recover. Of the people with ARC, according to Quinn, 15 to 30 percent will go on to develop AIDS within five years.

(4) Researchers have recently found that in AIDS, the virus often directly attacks the brain, and many AIDS patients have brain degeneration. By the time a patient has developed all the symptoms of AIDS, the virus has destroyed most of the helper T cells. "These people invariably die," says Bartlett. "Some live longer, but generally, from the first clinical expression to the time they die is 13 to 16 months. Even after we treat them for their opportunistic infections, they just keep losing weight and getting unexplained fevers and looking emaciated. They finally die a quiet death."

The disease has spread fast . . .

Fifteen years ago, AIDS probably did not exist. As of December 9, 1985, the United States had had 15,403 cases of AIDS. Of

Ann Finkbeiner, a contributing editor of this magazine, is a Baltimore free-lancer. Her most recent article for Hopkins was our August story on cyclosporine.

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The virus turns the helper T cell into a factory for making more viruses, which fan out to infect more helper Ts, until the patient's immune system is wiped out.

HTLV-III/LAV viruses attack the plasma membrane of infected lymphocytes.

patients diagnosed before 1983, 75 percent have already died.

During the week of November 16, the CDC was notified of 121 new cases, bringing the year's total to 7,016. A year before, during the corresponding week, there had been 89 new cases, and the year's total to that date had been 3,732.

In Baltimore, the number of new cases of AIDS or ARC doubles every nine months. New York and San Francisco, where the disease hit earlier, double their cases only every 14 months. This so-called doubling rate is clearly slowing with time. Nationwide, the number of cases now doubles once a year.

Of the up to a million people who may have been infected with the virus, it's expected that 1 to 2 percent will develop AIDS during the next year. "No one knows what's going to happen to those percentages," says Bartlett. "Probably more than 3 percent of those exposed will eventually get AIDS. Maybe it will go as high as 10 or 20 percent. No one thinks it will go to 100 percent."

. . . but it seems to concentrate in certain groups.

In this country, AIDS appeared first among gay men, then among intravenous drug users. Gay and bisexual men now account for 73 percent of those who have AIDS; intravenous drug users account for 17 percent. In September, the CDC predicted that AIDS will become the major cause of death among gay men and intravenous drug users.

The other 10 percent is made up of scattered groups. Within two years of the first cases, AIDS was also reported among Haitians, hemophiliacs, and people who had received blood transfusions. These people now account for a small proportion of AIDS patients. The disease is also showing up in newborn babies whose mothers are infected, in female street prostitutes, and in the sexual partners—mostly women—of AIDS patients or of people from a high-risk group.

Within each of these groups, the prevalence of the virus varies but can be high. Depending on the study and the city, from 17 to 67 percent of all gay and bisexual men are harboring antibodies to the virus; so are 50 to 87 percent of intravenous drug users; 72 to 85 percent of hemophiliacs who received clotting factor before March 1985; and 5 to 40 percent of female street prostitutes (many of these women are drug users).

The good news first: Two groups are off the risk lists. Hemophiliacs and people getting blood transfusions, unless exposed to the virus before March 1985, are out of danger. The virus is entirely out of the blood banks. And despite their early cases, which seem to be an historical accident (see box), Haitians are not now considered a risk group. From 4 to 8 percent of Haitians in Haiti have antibodies.

On the bad side, Frank Polk, epidemiologist at the Johns Hopkins School of Hygiene and Public Health, expects more AIDS in IV drug users, in women, and in babies born to infected women. "Men do the same things with women that they do with other men," he points out; the sexual practices which transmit AIDS are not unique to gay men. Sexual partnerships shift from time to time, and AIDS has a long incubation period. It is therefore difficult to determine the risk to heterosexual partners of AIDS patients. However, up to a third of the female sexual partners of males infected with the virus have antibodies to the virus.

In general, most researchers expect little change in patterns of transmission, because these patterns have been stable for five years. Incidence of AIDS outside these groups is "extremely low," reports the CDC: about 0.1 per 100,000. That's one in a million.

How do you catch AIDS?

To give you AIDS, the virus has to go directly into the blood.

HTLV-III lives in T helper cells. Because T helpers are white blood cells, or lymphocytes, the virus has direct access to the blood and wherever else lymphocytes go. Most body fluids contain lymphocytes, so the virus has been found in blood, semen, saliva, and tears. Lymphocytes, and the virus, concentrate most heavily in blood (of course), and in semen. Saliva has few lymphocytes and little of the virus. The same is true for tears. There are no known cases of AIDS being communicated through saliva or tears. No one has yet been able to isolate the virus from vaginal and cervical fluids, a fact which argues that if these fluids contain the virus at all, the level is extremely low.

To cause infection, the virus needs to be passed directly from one body fluid to another, perhaps in large doses. People who received transfusions with infected blood had the virus injected directly into their bloodstreams, as did hemophiliacs receiving clotting factor, a concentrate of hundreds of different blood donations. Intravenous drug users often share syringes; the virus can easily travel in infected blood inside the needle or syringe. Researchers think sick babies probably get the virus before birth, through the blood crossing the mother's placenta.

The virus alone may not be enough to cause sickness.

Herpes, hepatitis B, cytomegalovirus, intestinal parasites, and mononucleosis caused by Epstein-Barr virus are all fairly common in sexually active gay men, whether or not they are infected with HTLV-III. They are also common (and serious) in AIDS patients, and in the past history of AIDS patients.

Because of the correlation, these viral infections have sometimes been suggested as "cofactors" of AIDS. Imagine a person infected with HTLV-III virus, explains Polk. The person has a normal immune system and normal lymphocytes, and remains well. The immune system seems to be holding the virus at bay. "Then one day that person gets infectious mononucleosis. This infection starts to activate the T

A close-up view. the virus buds from the membrane.

The problem with a full-blown cure is that anything that kills HTLV-III will also kill the T cells in which it lives. A cure that shatters the immune system is no better than the disease.

cells, and activated T cells are more susceptible to HTLV-III virus. . . Perturbing the immune system may give the virus a chance to spread rapidly through the system."

These same infections prey on the weakened immune system of AIDS patients, which confuses the picture. But by watching populations of infected persons to see how and when the unfortunate few develop AIDS, the cofactor question may come clear in the next year or so.

It is not clear how much AIDS is transmitted by sharing infected needles among IV drug users, but the amount may be substantial.

In most studies, if an AIDS patient is both gay and an IV drug user, he is counted in the gay column. But according to Harold Ginzberg of the National Institute of Drug Abuse, in a study based on the first 9500 AIDS cases, 12 percent were both gay/bisexual *and* IV drug users. In New York City, which counts cases both ways, more than a third of all AIDS cases can be attributed to IV drug use.

IV drug use is not confined to back-alley heroin addicts. So-called "recreational drugs," like cocaine and amphetamines, are often administered by injection, and syringes are often shared. If the HTLV-III virus were to spread further into the general U.S. population, drug users would be the likely route.

Most AIDS is transmitted sexually.

After interviewing many people infected with virus, the CDC has found that the risk depends on what you do and with whom. In general, semen is rich in lymphocytes and can therefore be extremely infectious. Any practice that allows infected blood or semen to enter the bloodstream may well lead to infection.

The receptive partner in anal intercourse, whether man or woman, runs the highest risk of infection. The rectum is lined with a thin layer of goblet cells, comparatively fragile and easily torn. Variations of anal intercourse using instruments or fists make infection even more probable.

The receptive partner in vaginal intercourse runs much less risk of getting the virus, because the vagina is lined with mucosal tissue; it is tough, slippery, elastic, and hard to tear. Nevertheless, if the male partner is infected, vaginal intercourse is not entirely safe. In the U.S., an estimated one-third of female partners of infected men have picked up HTLV-III infection, and nearly half the African AIDS cases are women. Both these groups include women who deny ever having anal intercourse.

Unprotected oral intercourse is not safe for the receptive partner. Pre-ejaculation fluids may contain semen. For that reason withdrawal has never worked well for fertility control, and common sense indicates it won't control AIDS either. Swallowing semen of an AIDS-infected partner is considered definitely unsafe.

Can men catch AIDS from women? Not as easily as the other way around. Transmission patterns in developing countries remain unclear, but in the U.S. case histories indicate that the insertive male partner may be at risk largely if he has cuts or abrasions on his penis. There are a number of women with AIDS who report frequent intercourse while menstruating; their husbands are not infected. In several gay couples who never switch roles, the receptive partner is infected; none of the insertive partners has acquired the virus. Among U.S. cases to date, there are 133 people whose only risk factor was heterosexual contact with someone in an AIDS risk group. Of these people, 118 are women. "Women can get it," summarizes Polk, "but they probably pass it very infrequently. I think women are a barrier to the continued spread of this disease." No one is sure, however.

There are no known cases of AIDS caught from kissing. (Saliva is low in lymphocytes, remember.) One study followed 35 AIDS patients and their 88 non-sexual household contacts for many months. Ninety percent reported hugging and kissing, *and 10 percent shared toothbrushes or razors.* Except for a child born to an infected mother, none of the other 87 persons acquired the HTLV-III virus.

Note that these are epidemiological arguments, based on who gets the disease in what numbers, not on scientific proof of the virus's mode of travel. Researchers are relatively sure that the virus does not adhere to cells lining the mouth, stomach, rectum, or vagina. But infected semen is so highly infectious, and tiny abrasions so easy to come by, that researchers pointedly refuse to classify any unprotected sexual contact with people carrying the virus as safe.

Promiscuity is implicated

Promiscuity is implicated in AIDS. In every study, both gay men and heterosexuals with AIDS have had more sexual partners than those without AIDS. The disease probably spread so virulently through the gay community for two reasons. One is the higher rate of anal intercourse. The other is institutions such as bath-houses, which provide promiscuous gay men with a great many sexual contacts in a short period of time. (Many bath-houses have already closed.)

In general, sexual contact with any member (or sexual contact) of a known risk group may be unsafe, since as many as a million well people may be carrying the virus. Promiscuity increases the chance of encountering a carrier. Women, Polk advises, should be wary of men who may be IV drug users, the primary risk group in the heterosexual population. Condoms or other barriers may be wise for both heterosexual and gay couples unless the relationship is long-term and monogamous.

AIDS cannot be caught by casual contact, or even by caring for an AIDS patient.

The researchers who study AIDS, whether they are specialists in infectious diseases, or epidemiologists who track the disease through society, are sure how AIDS is

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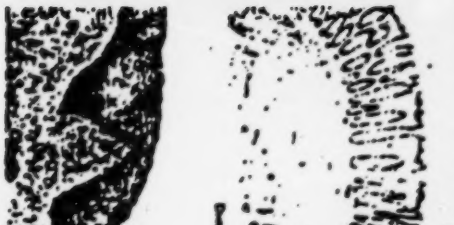

Why some practices can expose people to infected blood or semen. The vagina (left) is lined with tough mucosal tissue, whereas the lining of the rectum is more fragile.

In general, sexual contact with any member (or sexual contact) of a known risk group may be unsafe, since as many as a million well people may be carrying the virus. Promiscuity increases the chance of encountering a carrier.

spread and how it is not spread. And they can't seem to say often enough, that except for direct injection and sexual contact, the AIDS virus is hard to transmit. It is not air-borne.

"This virus is highly specific to its niche, the helper T cell," says Timothy Townsend, hospital epidemiologist at the Johns Hopkins Hospital. "Outside that cell, it doesn't survive well. It does not survive on toilet seats and doorknobs. A lot of things, like drying, heat, sunlight, soap-and-water, alcohol, kill it. It's easy to kill."

Bartlett calls it "a pathetic, weak, hapless virus."

"A cold," says Quinn, "is highly infectious. You only need to shake hands with someone who has a cold, and you've got it too. This virus is nothing like that."

Compared to measles, influenza, or chicken pox, says Polk, "this disease is much, much, much harder to get. This virus is not spread casually. It is not spread by talking to, shaking hands with, sharing glasses with, singing in the choir with someone who has AIDS."

Quinn extends the list: "You can't get it from casual contact, not from kissing, not from embracing, not from wrestling, not from using the same spoon. There's no data here or anywhere else that implies anything else."

Townsend, Quinn, Bartlett, and Polk are so convinced that AIDS is hard to catch because the CDC has carefully watched two groups of people who, if the virus were more robust, should be at special risk. One group is the families of AIDS patients, excluding those who have sexual contact. "The families that take care of these patients for months and months and months," said Bartlett, "do not get this disease. They just don't get it. It's HARD to transmit that virus." James Curran of the CDC reports that of a hundred members of households with AIDS patients, "our best estimate of the risk of household transmission is zero." The families of AIDS patients do not get infected.

The other group is nurses, lab technicians, and doctors whose job is to care for AIDS patients. The CDC reported that it has screened over a hundred health care workers who had actually stuck themselves with infected needles; after eight months, not one had developed antibodies. Worldwide, only one health worker, a British nurse, has clearly acquired the infection on the job, and this woman not only stuck herself by accident, but actually injected the patient's blood. Under normal circumstances, the doctors and nurses of AIDS patients do not get AIDS.

If the people who live with and care for AIDS victims are not exposed to the virus, then, says Townsend, whose specialty is pediatric epidemiology, "Pulling your kids out of a school where there's an AIDS victim is a little on the crazy side." In a French school for hemophiliacs and disabled children, many hemophiliac children have AIDS, but not one of their classmates has become infected.

Polk says that parents are side-tracked by fear: "They don't nail engineers to the wall and make them guarantee the school boiler won't blow up. They don't make bus drivers guarantee they won't have accidents. But about AIDS, they want absolutes."

Absolutes are not what scientists deal in. Says Townsend, "A scientist works in probabilities, and he won't give you a 100 percent guarantee that the sun will come up tomorrow. The best he can do is give you risk estimates. Ten thousand to one? A million to one? Probably somewhere in that ballpark."

Would they send their own children to school with an AIDS child? Yes. Quinn and Polk both have school-age children. Their answer is an unqualified yes.

AIDS is a new disease

Immunologist Thomas Quinn talks about the natural history of AIDS and why it matters.

"No one knows for sure how long the disease has been around. The first cases in the U.S. can now be dated back to 1977 or 1978. Allow for a few years of incubation, and you can probably guess that it first appeared in the mid-1970s. We do know it wasn't around before that. We've been keeping records on two of the opportunistic diseases commonly seen in AIDS patients—*Pneumocystis carinii* pneumonia and Kaposi's sarcoma—for close to 20 years. Until the early '80s, these diseases never spread in the sort of recognizable patterns we now see, nor did we see them in healthy young men. So clearly, this is a new disease in the U.S.

"Data are sketchier for the rest of the world. AIDS seems to have hit Europe a couple of years later than here—their incidence curves follow our early ones. Central Africa and the Caribbean are hard to get data on, because they don't keep the records. Many of the early cases were in Haiti. And some blood sera pulled in the mid-'70s in central Africa show antibodies to the virus.

"The best guess is that the disease came from an animal—not necessarily from primates. This virus has relatives that cause diseases in lots of different animals. Maybe this virus mutated, and at the same time it was undergoing mutation it came into contact with humans. Maybe someone got bitten, or got blood in a cut while butchering infected animals. The best guess is that this happened in central Africa, probably in the early '70s.

"In the early 1960s, Zaire [formerly Belgian Congo] became independent. It appealed to the UN for black, French-speaking professionals to help with economic independence, and Haiti responded. Haitians resided in Zaire, and some still do; but in the mid-'70s, Zaire began nationalizing businesses and many Haitians left. Most went back to Haiti, but some went to the U.S. and some to Europe. Haiti is a vacation place for Americans. Some of these Haitians may

"It is not spread by talking to, shaking hands with, sharing glasses with, singing in the choir with someone who has AIDS."

What is being done about AIDS?

First, the virus is completely out of the blood banks.

Last March, researchers began to test all blood in the blood banks. The test used is a new one called ELISA (enzyme-linked immunosorbent assay). When pieces of HTLV-III are placed in a blood sample, any matching antibodies in the blood will stick to the virus. ELISA's only problem is that it sometimes says antibodies are present when they are not. Nevertheless, all blood in the blood banks that tests positive is thrown out. All donors are now screened, so no more infected blood can enter the banks. The blood supply, as of March 1985, is clean.

ELISA is also used to screen people for antibodies to the virus. Any people who test positive are then re-tested with the more time-consuming, but more reliable Western blot test. Note that both tests identify *antibodies;* most people who test positive do not have AIDS.

Does a person donating blood risk infection? "No," says Polk. "No way." The needles used to take blood are sterile, used once, and thrown away. The donor never has any contact with anyone else's blood. With regards to AIDS, giving blood is and always has been completely safe.

Second, virologists are trying to understand the virus so they can attack it.

When Robert Gallo first isolated the AIDS virus, he thought it was a leukemia virus. But recently, Johns Hopkins virologists Janice Clements and Opendra Narayan, with Matthew Gonda, Flossie Wong-Staal, Gallo, and Raymond Gilden from the National Cancer Institute, have suggested that HTLV-III might instead be what is called a "slow virus." If so, some of the disease's mysterious patterns begin to make sense.

HTLV-III is a simple parasite, a coiled strand of RNA surrounded by a coat made of proteins. The coat carries attachments that stick specifically to helper T cells. Once attached, the virus dissolves the cell's walls and insinuates itself into the cell's reproductive mechanism. Then, using an enzyme called reverse transcriptase, it converts its own RNA into DNA, which integrates into the cell's DNA. HTLV-III takes up permanent residence in the cell.

The immune system counters infection by making antibodies that stick specifically to any attacking virus. Usually, antibodies adhere avidly and kill the virus. But the antibodies that respond to HTLV-III, for some reason, adhere half-heartedly and do not kill the virus. "In effect," says Narayan, "the AIDS virus has a greater affinity for the cell than the antibody has for the AIDS virus. So the virus wins." In the upshot, the virus turns the helper T cell into a factory for making more viruses, which fan out to infect more helper Ts, until the immune system is wiped out.

Gallo and Flossie Wong-Staal, working with colleagues at the National Cancer Institute and at Harvard, discovered that helper T cells infected with HTLV-III are revved up, so they can manufacture more virus with extraordinary speed. One normal flu virus causes its host cell to make 2,000 new flu viruses in a given amount of time. In the same time, an HTLV-III "factory cell" will make *40,000* new viruses. This ability, the group thinks, comes from a viral gene they call a *trans*-activator.

At about the same time, the Hopkins and Cancer Institute groups noticed that HTLV-III looks and acts like a slow virus. Slow viruses, which typically infect sheep, goats, and horses, are named for their rate of reproduction: between 40 and 400 new viruses in a given time. Slow viruses, like HTLV-III, carry *trans*-activating genes. But apparently they don't use them.

On the surface, slow reproduction hardly sounds like AIDS. However, Clements and Narayan suspect that slow viruses might also have a second controlling gene, sort of an opposite *trans*-activator. Such a gene would slow down reproduction. With HTLV-III, perhaps, the slowing-gene dominates during the early stages of infection, so the virus reproduces too lethargically to make anyone sick. If so, that would account for people who have antibodies to the virus but seem to stay healthy. It would also explain the years-long incubation in those who do eventually get sick: finally, for some reason and in some people, the *trans*-activating gene is triggered, and the virus and disease both spread like wildfire.

If all this is right, and HTLV-III is a slow virus that reproduces first slowly then rapidly, then some of AIDS' characteristics make sense. For one thing, like HTLV-III, slow viruses attack the immune system. For another, slow viruses spread so slowly that you may or may not ever get sick. "In animals with slow viruses," says Narayan, "80 to 90 percent stay well." AIDS shows a similar pattern. For a third thing, like AIDS, slow viruses infect brain cells, which have attachments on their surfaces similar to those on helper T cells.

Lastly, slow viruses are notorious for changing their protein coats easily, an ability called antigenic drift. Since antibodies kill by attaching to the virus's coat, antigenic drift helps the virus evade detection. HTLV-III not only changes its coat over

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have been carrying AIDS.

"But it didn't have to have been Haitians—it could as well have been any traveller. Just a small number could have begun an epidemic. We have no proof for any of this. This is our best guess because the virus has been found in those places, and because the times fit.

"It's important to know the natural history of the virus. Before we can make a vaccine to protect against AIDS, we need to know more about the biology of the virus. If we could find the source and go back, we could learn more about its living relatives as well as its ancestors. That might help us find local variants of the virus *that happen to be non-virulent.* A non-virulent relative could be used to develop a vaccine."

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time, but has different coats in different people. In fact, researchers at NIH have results which suggest that viruses from the same person sometimes have different coats.

Using what they know, researchers are looking for both a vaccine and a cure.

Coat-changing makes that difficult. HTLV-III is like the flu virus, says Narayan: "By the time you make an antibody that will attach to coat A, the virus has switched to coat B." Based on his work on slow viruses in animals, Narayan thinks prospects for a vaccine are dismal. Clements disagrees. "Because natural antibodies don't kill the virus, we know that an antibody, to be lethal, would have to stick only to highly specific places on the coat. That, plus antigenic drift, makes a vaccine a matter of some very complex science. But I think it's also just a matter of time. The prospects of a vaccine depend on learning more about that protein coat, and are not dismal at all."

A vaccine would protect anyone not already infected, and would be indicated for anyone whose lifestyle makes exposure possible. For those already infected, researchers are looking for a cure, or at least a treatment. The problem with a full-blown cure is that anything that kills HTLV-III will also kill the T cells in which it lives. A cure that shatters the immune system is no better than the disease.

Another possibility: HTLV-III depends on reverse transcriptase to take over the T cell's DNA. So why not seek a drug that is only toxic to reverse transcriptase? "The drug companies are working hard on that," says Polk, "and have found some drugs they think ought to work. But so far, not a single patient has improved clinically or immunologically as a result of treatment. . . . . Maybe we just haven't treated them long enough yet."

Both Clements and Narayan suspect that nothing can clear the viruses out of an infected body. Both think that the most likely idea is a treatment to keep the virus in its slowly-reproducing stage—an indefinite incubation period. Interferon reduces the number of new viruses HTLV-III can manufacture to around 10, but supplies of interferon are limited and extremely expensive, and the treatments are so painful that sometimes patients quit. Something that worked like interferon, however, might keep the infection to a low-grade war, an Apache stand-off.

A new and unexpected development might hint another strategy to the AIDS war. At the end of October 1985, a group of French physicians announced that cyclosporine, a drug normally used to suppress the immune system's reaction to transplanted organs, also seemed to work against AIDS. They made their announcement on the basis of one AIDS patient and several ARC patients, and most researchers were immediately dubious. Using a drug that *inhibits* helper T cells to treat a disease that *kills* helper T cells didn't seem to make sense.

Allen Hess, however, an immunologist specializing in cyclosporine research at the Johns Hopkins School of Medicine, is inclined to think about it. What if AIDS is like an autoimmune disease, he wonders, in which the immune system attacks itself? Perhaps once a helper T becomes infected with the virus, the killer Ts think the helper T is foreign and attack it. "If this is true," says Hess, "using a drug like cyclosporine might be like fighting fire with fire. It might have a hope."

Narayan agrees that trying cyclosporine made sense—a lot of sense. There is, in fact, a slow virus that causes autoimmune disease in horses. It works this way: antibody binds to a slow virus, and the virus infects a red blood cell. The horse's immune system then produces another antibody which attacks the slow virus-antibody complex, and so kills the blood cell. The horse gets anemia.

"On the whole, I see reasons for optimism," says Bartlett. "Look at this: In 1981, the disease is first described; in 1983, the virus is in hand. Within a year, they know the amino acid sequence, a sequence so long it covers two pages in *Science*. We have more information about this virus in the space of four years, than we have about any other infectious agent." In early October, the Senate appropriations committee raised the 1986 budget request for AIDS research from $120 million to $241 million.

Third, education about AIDS is changing the sexual habits that transmit AIDS.

"I think education will work," says Polk. He spends hours each week talking to reporters, gay task force people, prison administrators, and public school administrators. "I'm optimistic about the effects of educational intervention. I think we can change behaviors, change life styles. The gay community has put a lot of effort into educating its people, and with gay and bisexual men the change is already happening." A recent phone survey in San Francisco found that the number of homosexuals who described themselves as monogamous, celibate, or not practicing "unsafe" sex outside a primary relationship rose from 69 percent to 81 percent in eight months. Other studies of gay men report similar changes, and the incidence of VD in that population is plummeting.

All the researchers emphasize that gay and bisexual men as a group have been cooperative and intelligent about AIDS. As soon as the blood bank problem became known, the gay community refrained from giving blood. And despite a fear that the information could be misused, many gay and bisexual men are cooperating with researchers, submitting to detailed interviews and frequent examinations.

But Polk doubts that intravenous drug users will stop sharing needles, despite knowing the risk: "Drug users are self-destructive by definition." He would like the government to distribute sterile, disposable needles, free.

Education should also steady the public's reaction. "Ignorance spawns fear," Polk says. "I'm worried about those people who want to isolate AIDS patients." Quinn reports attending a conference where a Russian government official stated that Russia has no cases of AIDS. "He said that if they did, they would lock them up. Imprison them. And we knew at the time that in fact several cases have been identified in Russian hospitals. What's happened to those cases, we don't know."

And fourth, epidemiologists are carefully following those who are at risk, have been exposed, or are already sick.

Polk heads one of several long-range studies of gay men at risk or already exposed to the virus. The Hopkins study is called SHARE, Study to Help the AIDS Research Effort. "We have data on the risk of getting infected," Polk says. "We're now examining our data for evidence on the risk of getting sick. . . . Our first volunteer walked in the door April 2, 1984. Though none of the participants had symptoms of AIDS when they signed up, we found antibodies to the virus in 30 percent of them. Among those who were initially negative, another 8 percent developed antibodies during the following year. A year and a half later, 13 of our participants now have AIDS. Of the people infected, we want to see what distinguishes those who do get sick from those who don't. We expect to have some very important answers in a couple of years."